

Class 2 Landfill Soil Data Summary

Sample ID	Sample Date	Sample Depth (below ground surface)	Cadmium	Lead
		(feet)	(mg/kg)	(mg/kg)
Class 2 Landfill				
2013-PMW-20R (0-0.5)	02/26/13	0-0.5	0.362	149
2013-PMW-19R (0-0.5)	02/26/13	0-0.5	< 0.0302	20.4
2013-LMW-21 (0-0.5)	02/27/13	0-0.5	0.796	209
2013-LMW-22 (0-0.5)	02/27/13	0-0.5	1.32	282
Residential Assessment Level¹			52	500

Notes:

1. Residential Assessment Levels (RALs) are based on the minimum of the TRRP Tier 1 residential $^{Tot}Soil_{Comb}$ and Tier 2 $^{GW}Soil_{Class3}$ PCLs for a 30-acre source area.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-69246-1

Client Project/Site: Exide Recycling Center, Frisco TX Projec

For:

Pastor, Behling & Wheeler LLC
2201 Double Creek Dr
Suite 4004
Round Rock, Texas 78664

Attn: Eric Pastor



Authorized for release by:
3/11/2013 4:44:07 PM

Cathy Upton
Data Delivery Analyst
cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar
Project Manager II
sachin.kudchadkar@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



Table of Contents

Cover Page	1
Table of Contents	2
TRRP Cover Page	3
TRRP Checklists & DCSs	4
Case Narrative	8
Method Summary	9
Sample Summary	10
Client Sample Results	11
Definitions/Glossary	12
QC Sample Results	13
Default Detection Limits	14
QC Association Summary	15
Lab Chronicle	16
Certification Summary	17
Chain of Custody	18
Receipt Checklists	20

Job Number: 600-69246-1
Project Name/Number: Exide Recycling Center, Frisco TX Projec

This Data Package consists of:

This signature page, the laboratory review checklist, and the following Reportable Data:

- R1 Field Chain-of-Custody Form
- R2 Sample Identification Cross-reference;
- R3 Test Reports (Analytical Data Sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate Recovery Data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test Reports/Summary Forms for Blank Samples;
- R6 Test Reports/Summary Forms for Laboratory Control Samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - d) The laboratory's LCS QC limits
- R7 Test Reports for Matrix Spike/Matrix Spike Duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked sample,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicates (if applicable) recovery and precision, including:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limit (MQL) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies

The exception report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under Texas laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm, to the best of my knowledge, that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Cathy Upton
Name (printed)
Data Delivery Analyst
Official Title (printed)


Signature

03/11/2013
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: TestAmerica-Houston			LRC Date: 03/06/13				
Project Name: Exide Recycling Center, Frisco TX			Laboratory Job Number: 600-69246				
Reviewer Name: TWR			Prep Batch Number(s): 600-100613- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soil/solid samples for volatile analysis extracted with methanol per SW846 Method 5035? If required for the project, TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? Was the LCSD RPD within QC limits?	X			X	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: TestAmerica-Houston					LRC Date: 03/06/13				
Project Name: Exide Recycling Center, Frisco TX					Laboratory Job Number: 600-69246				
Reviewer Name: TWR					Prep Batch Number(s): 600-100613- ICP				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1	OI	Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?			X				
		Were percent RSDs or correlation coefficient criteria met?			X				
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?			X				
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3	O	Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4	O	Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?			X				
S5	OI	Raw data (NELAC section 5.5.10)							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?			X				
S6	O	Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7	O	Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8	I	Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9	I	Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X						
S10	OI	Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11	OI	Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12	OI	Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13	OI	Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14	OI	Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16	OI	Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: TestAmerica-Houston	LRC Date: 03/06/13
Project Name: Exide Recycling Center, Frisco TX	Laboratory Job Number: 600-69246
Reviewer Name: TWR	Prep Batch Number(s): 600-100613- ICP
ER #¹	DESCRIPTION

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

Detection Check Standard

Matrix: Soil
Method: 6010B
Preparation: 3050
Date Analyzed: 11/29/2012
Date Prepared: 11/28/2012
Instrument: Thermo 6500
TALS Batches: 94304,94171(prepare)
Prep/Reagent Factor = 50
Units: mg/kg

Analyte	MDL	DCS Spike	Measured Result	MQL
Aluminum	0.299654	0.5	0.44	25
Antimony	0.231553	0.45	0.475	2.5
Arsenic	0.217923	0.5	0.58	1
Barium	0.011322	0.03	0.03	1
Beryllium	0.014513	0.02	0.02	0.25
Boron	0.385535	0.6	0.885	20
Cadmium	0.025642	0.05	0.055	0.25
Calcium	0.86399	1.5	2.205	100
Chromium	0.050606	0.1	0.11	0.5
Cobalt	0.067622	0.1	0.1	0.5
Copper	0.173703	0.5	0.385	0.5
Iron	2.534007	4	4.285	20
Lead	0.104832	0.2	0.23	0.5
Selenium	0.258884	0.5	0.56	2
Manganese	0.038111	0.05	0.045	1.5
Molybdenum	0.136448	0.35	0.38	0.5
Nickel	0.116599	0.15	0.14	1
Silver	0.118848	0.2	0.21	0.5
Sodium	0.885548	2.4	3.225	100
Strontium	0.00252	0.005	0.985	0.25
Thallium	0.276988	0.7	0.71	1.5
Tin	0.08729	0.15	0.16	1
Titanium	0.014529	0.03	0.02	0.5
Vanadium	0.079068	0.15	0.17	0.5
Zinc	0.108432	0.2	0.315	1.5

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Project

TestAmerica Job ID: 600-69246-1

Job ID: 600-69246-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-69246-1

Comments

No additional comments.

Receipt

The samples were received on 2/28/2013 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.7° C.

Metals

Method(s) 6010B: The following sample(s) required filtration to reduce matrix interferences: (600-69246-9 DU), LMW-21 (0-0.5) (600-69246-9), LMW-21 (0-0.5) (600-69246-9 MS), LMW-21 (0-0.5) (600-69246-9 MSD), LMW-22 (0-0.5) (600-69246-13), PMW-19R (0-0.5) (600-69246-5), PMW-20R (0-0.5) (600-69246-1).

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444



Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-69246-1	PMW-20R (0-0.5)	Solid	02/26/13 12:45	02/28/13 09:15
600-69246-5	PMW-19R (0-0.5)	Solid	02/26/13 15:15	02/28/13 09:15
600-69246-9	LMW-21 (0-0.5)	Solid	02/27/13 08:05	02/28/13 09:15
600-69246-13	LMW-22 (0-0.5)	Solid	02/27/13 08:00	02/28/13 09:15

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Client Sample ID: PMW-20R (0-0.5)

Lab Sample ID: 600-69246-1

Date Collected: 02/26/13 12:45

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 76.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.362		0.301	0.0309	mg/Kg	☼	02/28/13 10:48	03/01/13 09:56	1
Lead	149		0.602	0.126	mg/Kg	☼	02/28/13 10:48	03/01/13 09:56	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23		1.0	1.0	%			02/28/13 15:48	1
Percent Solids	77		1.0	1.0	%			02/28/13 15:48	1

Client Sample ID: PMW-19R (0-0.5)

Lab Sample ID: 600-69246-5

Date Collected: 02/26/13 15:15

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 82.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0302	U	0.294	0.0302	mg/Kg	☼	02/28/13 10:48	03/01/13 10:00	1
Lead	20.4		0.588	0.123	mg/Kg	☼	02/28/13 10:48	03/01/13 10:00	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		1.0	1.0	%			02/28/13 15:48	1
Percent Solids	83		1.0	1.0	%			02/28/13 15:48	1

Client Sample ID: LMW-21 (0-0.5)

Lab Sample ID: 600-69246-9

Date Collected: 02/27/13 08:05

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 76.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.796		0.325	0.0333	mg/Kg	☼	02/28/13 10:48	03/01/13 10:04	1
Lead	209		0.650	0.136	mg/Kg	☼	02/28/13 10:48	03/01/13 10:04	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			02/28/13 15:48	1
Percent Solids	76		1.0	1.0	%			02/28/13 15:48	1

Client Sample ID: LMW-22 (0-0.5)

Lab Sample ID: 600-69246-13

Date Collected: 02/27/13 08:00

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 75.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.32		0.308	0.0316	mg/Kg	☼	02/28/13 10:48	03/01/13 10:19	1
Lead	282		0.615	0.129	mg/Kg	☼	02/28/13 10:48	03/01/13 10:19	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24		1.0	1.0	%			02/28/13 15:48	1
Percent Solids	76		1.0	1.0	%			02/28/13 15:48	1

TestAmerica Houston

Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Project

TestAmerica Job ID: 600-69246-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
 Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-100613/1-A
Matrix: Solid
Analysis Batch: 100688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100613

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.0256	U	0.250	0.0256	mg/Kg		02/28/13 10:48	03/01/13 09:49	1
Lead	0.105	U	0.500	0.105	mg/Kg		02/28/13 10:48	03/01/13 09:49	1

Lab Sample ID: LCSSRM 600-100613/2-A
Matrix: Solid
Analysis Batch: 100688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100613

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	103	99.61		mg/Kg		96.7	83.6 - 115.5
Lead	76.9	72.01		mg/Kg		93.6	81.3 - 118.7

Lab Sample ID: 600-69246-9 MS
Matrix: Solid
Analysis Batch: 100688

Client Sample ID: LMW-21 (0-0.5)
Prep Type: Total/NA
Prep Batch: 100613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.796		30.2	27.03		mg/Kg	✱	87	75 - 125
Lead	209		60.4	262.5		mg/Kg	✱	88	75 - 125

Lab Sample ID: 600-69246-9 MSD
Matrix: Solid
Analysis Batch: 100688

Client Sample ID: LMW-21 (0-0.5)
Prep Type: Total/NA
Prep Batch: 100613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cadmium	0.796		32.5	28.82		mg/Kg	✱	86	75 - 125	6	20
Lead	209		64.9	265.2		mg/Kg	✱	86	75 - 125	1	20

Lab Sample ID: 600-69246-9 DU
Matrix: Solid
Analysis Batch: 100688

Client Sample ID: LMW-21 (0-0.5)
Prep Type: Total/NA
Prep Batch: 100613

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cadmium	0.796		0.7564		mg/Kg	✱	5	20
Lead	209		182.1		mg/Kg	✱	14	20

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Cadmium	0.250	0.0256	mg/Kg	6010B
Lead	0.500	0.105	mg/Kg	6010B

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture



QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Metals

Prep Batch: 100613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69246-1	PMW-20R (0-0.5)	Total/NA	Solid	3050B	
600-69246-5	PMW-19R (0-0.5)	Total/NA	Solid	3050B	
600-69246-9	LMW-21 (0-0.5)	Total/NA	Solid	3050B	
600-69246-9 DU	LMW-21 (0-0.5)	Total/NA	Solid	3050B	
600-69246-9 MS	LMW-21 (0-0.5)	Total/NA	Solid	3050B	
600-69246-9 MSD	LMW-21 (0-0.5)	Total/NA	Solid	3050B	
600-69246-13	LMW-22 (0-0.5)	Total/NA	Solid	3050B	
LCSSRM 600-100613/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-100613/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 100688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69246-1	PMW-20R (0-0.5)	Total/NA	Solid	6010B	100613
600-69246-5	PMW-19R (0-0.5)	Total/NA	Solid	6010B	100613
600-69246-9	LMW-21 (0-0.5)	Total/NA	Solid	6010B	100613
600-69246-9 DU	LMW-21 (0-0.5)	Total/NA	Solid	6010B	100613
600-69246-9 MS	LMW-21 (0-0.5)	Total/NA	Solid	6010B	100613
600-69246-9 MSD	LMW-21 (0-0.5)	Total/NA	Solid	6010B	100613
600-69246-13	LMW-22 (0-0.5)	Total/NA	Solid	6010B	100613
LCSSRM 600-100613/2-A	Lab Control Sample	Total/NA	Solid	6010B	100613
MB 600-100613/1-A	Method Blank	Total/NA	Solid	6010B	100613

General Chemistry

Analysis Batch: 100646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-69246-1	PMW-20R (0-0.5)	Total/NA	Solid	Moisture	
600-69246-5	PMW-19R (0-0.5)	Total/NA	Solid	Moisture	
600-69246-9	LMW-21 (0-0.5)	Total/NA	Solid	Moisture	
600-69246-9 MS	LMW-21 (0-0.5)	Total/NA	Solid	Moisture	
600-69246-9 MSD	LMW-21 (0-0.5)	Total/NA	Solid	Moisture	
600-69246-13	LMW-22 (0-0.5)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
 Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Client Sample ID: PMW-20R (0-0.5)

Lab Sample ID: 600-69246-1

Date Collected: 02/26/13 12:45

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			100613	02/28/13 10:48	NER	TAL HOU
Total/NA	Analysis	6010B		1	100688	03/01/13 09:56	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	100646	02/28/13 15:48	AS	TAL HOU

Client Sample ID: PMW-19R (0-0.5)

Lab Sample ID: 600-69246-5

Date Collected: 02/26/13 15:15

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			100613	02/28/13 10:48	NER	TAL HOU
Total/NA	Analysis	6010B		1	100688	03/01/13 10:00	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	100646	02/28/13 15:48	AS	TAL HOU

Client Sample ID: LMW-21 (0-0.5)

Lab Sample ID: 600-69246-9

Date Collected: 02/27/13 08:05

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			100613	02/28/13 10:48	NER	TAL HOU
Total/NA	Analysis	6010B		1	100688	03/01/13 10:04	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	100646	02/28/13 15:48	AS	TAL HOU

Client Sample ID: LMW-22 (0-0.5)

Lab Sample ID: 600-69246-13

Date Collected: 02/27/13 08:00

Matrix: Solid

Date Received: 02/28/13 09:15

Percent Solids: 75.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			100613	02/28/13 10:48	NER	TAL HOU
Total/NA	Analysis	6010B		1	100688	03/01/13 10:19	DCL	TAL HOU
Total/NA	Analysis	Moisture		1	100646	02/28/13 15:48	AS	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: Exide Recycling Center, Frisco TX Projec

TestAmerica Job ID: 600-69246-1

Laboratory: TestAmerica Houston

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0759	08-04-12
Louisiana	NELAP	6	01967	06-30-13
Oklahoma	State Program	6	9503	08-31-13
Texas	NELAP	6	T104704223-10-6-TX	10-31-13
USDA	Federal		P330-08-00217	04-01-14
Utah	NELAP	8	GULF	10-31-13



Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1/007)

Client: Paster Paving & Wheeler Project Manager: Eric Paster Date: 2/27/13 Chain of Custody Number: 224810

Address: 2201 Double Creek Dr. #4004 Telephone Number (Area Code)/Fax Number: (512) 671-3434 Lab Number: _____ Page 1 of 2

City: Round Rock State: TX Zip Code: 78664 Site Contact: _____ Lab Contact: _____

Project Name and Location (State): Exide Enisco, TX Carrier/Vehicle Number: _____

Contract/Purchase Order/Quote No.: 185E 185E

Sample I.D. No. and Description <small>(Containers for each sample may be combined on one line)</small>	Date	Time	Matrix			Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc/ NaOH	
PMW-20R(0.5)	2/27/13	1245				X									Hold
PMW-20R(0.5-2)		1246													Hold
PMW-20R(2.4)		1247													Hold
PMW-20R(4.5)		1248													Hold
PMW-19R(0.5)		1515													Hold
PMW-19R(0.5-2)		1514													Hold
PMW-19R(2.4)		1517													Hold
PMW-19R(4.5)		1518													Hold
LMW-21(0.5)	2/27/13	0805													Hold
LMW-21(0.5-2)		0807													Hold
LMW-21(2.4)		0808													Hold
LMW-21(4.5)		0810													Hold

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify): _____

1. Relinquished By: Robert Russell Date: 2/27/13 Time: 1445 Received By: Wendy Lane Date: 2/27/13 Time: 1445

2. Relinquished By: Wendy Lane Date: 2/27/13 Time: 1730 Received By: Wendy Lane Date: 2/27/13 Time: 0915

3. Relinquished By: Wendy Lane Date: _____ Time: _____ Received By: Wendy Lane Date: 02/25/13 Time: 0915

Comments: _____

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy



Chain of Custody Record

Temperature on Receipt _____
 Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1/07)

Client: Paster, Baking & Wheeler Project Manager: Eric Paster Date: 2/22/13 Chain of Custody Number: 22A811
 Address: 2201 Double Creek Dr. #4004 Telephone Number (Area Code)/Fax Number: (512) 671-3434 Lab Number: _____
 City: Round Rock State: TX Zip Code: 78664 Site Contact: _____ Lab Contact: _____
 Project Name and Location (State): EXIDE, FRISCO, TX Contract/Purchase Order/Quote No.: 18576 Counter/Weight Number: _____
 Analysis (Attach list if more space is needed): _____
 Page 2 of 2

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives				Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl		NaOH	ZnAc/ NaOH
<u>LMW-22 (0-0.5)</u>	<u>2/22/13</u>	<u>0800</u>				<input checked="" type="checkbox"/>							<u>Hold</u>
<u>LMW-22 (0.5-1)</u>		<u>0801</u>											<u>Hold</u>
<u>LMW-22 (2-4)</u>		<u>0805</u>											<u>Hold</u>
<u>LMW-22 (4-8)</u>		<u>0809</u>											<u>Hold</u>

Possible Hazard Identification	Sample Disposal	Disposal By Lab	Archive For	Months	(A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Return To Client	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/> Flammable	<input type="checkbox"/> Unknown	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/> Skin Irritant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/> Poison B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/> Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

Turn-Around Time Required	1. Relinquished By	Date	Time	2. Received By	Date	Time
<input checked="" type="checkbox"/> 24 Hours	<u>Eric Paster</u>	<u>2/22/13</u>	<u>1445</u>	<u>M. Melone</u>	<u>2/27/13</u>	<u>1445</u>
<input type="checkbox"/> 48 Hours	<u>J. Melone</u>	<u>2/27/13</u>	<u>1730</u>	<u>Melone</u>	<u>02/28/13</u>	<u>0915</u>
<input type="checkbox"/> 7 Days						
<input type="checkbox"/> 14 Days						
<input type="checkbox"/> 21 Days						
<input type="checkbox"/> Other						

Comments: _____
 Distribution: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-69246-1

Login Number: 69246

List Source: TestAmerica Houston

List Number: 1

Creator: Pulumbarit, Josh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

DATA USABILITY SUMMARY

SITE: Exide Class II Landfill
Frisco, Texas

CLIENT: Pastor, Behling & Wheeler, LLC (PBW)
Round Rock, Texas

EVENT: Soil Sampling – February 2013

INTENDED USE: Affected Property Assessment

LABORATORY: TestAmerica – Houston, TX
TLAP Certification T104704223
Work Order: 600-69246-1

TESTS/ METHODS: Total Metals (Cd, Pb) SW846 3050B/6010B

SAMPLES: 4 soil samples, 1 field MS/MSD pair
(see Table 1 for a complete listing)

QAA completed a third-party review of the above chemical analysis data for conformance with the requirements of the Texas Risk Reduction Program (TRRP) guidance document, *Review and Reporting of COC Concentration Data* (RGG-366/TRRP-13 Revised May 2010) and for adherence to project objectives. The results of the review are discussed in this data usability summary (DUS).

QAA completed the review using the following laboratory and project submittals:

- Laboratory reportable data as defined in TRRP-13;
- Laboratory review checklists (LRCs) with the associated exception reports;
- Laboratory Electronic Data Deliverable (EDD); and
- Project field notes from the sampling event.

The review of the reportable data included the quality control (QC) parameters listed below, as required per TRRP-13, using the applicable analytical method and project requirements:

- Data Completeness
- Chain-of-Custody Procedures
- Sample Condition - Holding Time, Preservation, and Containers
- Field Procedures
- Results Reporting Procedures
- Laboratory and Field QC Blanks
- Laboratory Control Spike and Matrix Spike Recoveries
- Surrogate Recoveries
- Laboratory and Field Duplicate Precision

Additionally, QAA used the LRCs to evaluate the following QC parameters:

- Method Quantitation Limits (MQLs)
- Method Detection Limits (MDLs)
- Instrument Tuning, Calibration, and Performance
- Internal Standards

No project specific criteria have been specified for this site and thus the reviewer selected appropriate criteria as follows:

- Inorganics: 70-130% spike recovery (and not less than 30% or data is rejected) and \pm MQL difference or 30% RPD (for laboratory duplicates) as recommended in TRRP-13

DATA USABILITY SUMMARY

GLOSSARY OF TERMS

The following definitions apply for terms related to analyte reporting limits:

MDL (Method Detection Limit) – the minimum concentration of an analyte that the laboratory can measure and report with 99% confidence that the analyte concentration is greater than zero. The MDL is determined by the laboratory for each analyte in a given reagent matrix (water or soil) generally using the procedures specified in 40 CFR Part 136, Appendix B. It is a measure of the concentration an instrument can detect or ‘see’ in a given reagent matrix. TRRP-13 requires that the laboratory routinely check the MDL for reasonableness.

SDL (Sample Detection Limit) – the MDL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and taking into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can detect or ‘see’ in a given sample. For TRRP, non-detects are reported using the SDL. This term was originally called the SQL (Sample Quantitation Limit) before the TRRP rule revisions effective March 19, 2007.

Unadjusted MQL (Method Quantitation Limit) – the lowest non-zero concentration standard in the laboratory’s initial calibration curve calculated using the normal aliquot sizes and final volumes prescribed in the analytical method. The unadjusted MQL is reported by the laboratory for each analyte in a given matrix (water or soil). It is a measure of the concentration an instrument can accurately measure in a typical sample. Per TRRP, the Unadjusted MQLs should be below the Levels of Required Performance (LORPs) for purposes of assessment as well as demonstration of conformance with critical PCLs.

MQL – the unadjusted MQL adjusted to reflect sample-specific actions, such as dilution or use of smaller aliquot sizes than prescribed in the analytical method, and takes into account sample characteristics, sample preparation, and analytical adjustments including dry-weight adjustments. It is a measure of the concentration an instrument can accurately measure in a given sample. Analytes with concentrations above the SDL but below the MQL, though present in the sample, may not be accurately measured and are thus flagged as estimated (J).

LABORATORY CERTIFICATION

At the time the laboratory data were generated for this project, the laboratory was NELAC accredited under the Texas Laboratory Accreditation Program (TLAP) for the matrices, methods and parameters of analysis requested on the chain-of-custody form. A copy of the laboratory’s National Environmental Laboratory Accreditation Program (NELAP) certificate applicable to the period during which the laboratory generated the data in this report is included in Attachment 1 to this DUS.

USABILITY SUMMARY

1. Usability of Unqualified Non-Detects – Non-detects are reported at the sample detection limit (SDL) as required per TRRP. Additionally, according to the LRCs, an MDL study was performed for each analyte and the MDLs were checked for reasonableness. The levels of required performance (LORPs) have been established by PBW as 52-mg/kg for Cadmium and 500-mg/kg for Lead. As needed per TRRP, the Unadjusted MQL stated by the laboratory is at or below the LORP for each of these analytes, and thus the analytical methods are appropriate and the results can be used to demonstrate conformance with critical PCLs.
2. Usability of Qualified Data – No QC deficiencies were noted and the reviewer did not apply any data quality flags. Thus, all results are acceptable for the intended use.

QAA Reviewer: Taryn G. Scholz 4/2/13
(Name) (Date)

DATA USABILITY SUMMARY

QC PARAMETER	QC OUTCOME
Data Completeness	The laboratory data package contains all necessary data (i.e., the laboratory reportable data per TRRP-13). No data package or EDD revisions were required.
Chain-of-Custody	<p>Proper sample custody procedures were used, which confirms that the integrity of the samples was maintained. Additionally, the information on the custody record is complete and agrees with that in the field notes and laboratory report and the results for all tests are reported as requested on the custody record, except as follows:</p> <ul style="list-style-type: none"> • The custody record shows two field MS/MSD were collected, one for PMW-20R (0-0.5) and one for LMW-21 (0-0.5). No results are reported for the MS/MSD for PMW-20R (0-0.5) as it was cancelled based on the number of investigative samples that were held pending results of the first soil interval and never analyzed.
Sample Condition	Samples were collected in appropriate containers, properly preserved in the field, and prepared and analyzed within the holding times as required in the analytical methods, which ensures that the samples were not affected by analyte degradation.
Field Procedures	The soil borings were advanced using a hollow-stem auger. All samples were collected and placed immediately into sterilized jars provided by the laboratory and then into a cooler with ice. Four depth intervals were sampled at each of the four boring locations with all but the first interval marked hold pending analysis of the first interval. None of the held samples required analysis. Two field MS/MSD pairs were collected and one was analyzed with the four investigative samples.
Results Reporting Procedures	<p>The hardcopy analytical results include a Result, MQL (adjusted), and SDL. The EDD includes the MDL, SDL (under the SQL column per previously used terminology) and the MQL, which is not adjusted for sample specific factors. Results are reported in mg/kg with dry-weight correction. Non-detects are reported using the SDL as specified per TRRP. There are no detects between the SDL and MQL.</p> <p>None of the samples required dilution.</p>
MQLs	The LORPs for the samples have been defined by PBW as 52 mg/kg for Cadmium and 500 mg/kg for Lead. The Unadjusted MQLs are at or below the LORPs for these analytes.
MDLs	According to the LRCs, an MDL study was performed for each target analyte, and the MDLs were checked for reasonableness and either adjusted or supported by the analysis of detectability check standards (DCSs) as required per TRRP-13. Results for the DCS are included in the laboratory data packages.
Laboratory Blanks	No analytes are reported above the detection limit in the laboratory blanks, which confirms that no contamination was introduced in the laboratory.
Field QC Blanks	No field QC blanks were collected with the samples.
Laboratory Control Spike Recovery	The laboratory prepared one laboratory control spike (LCS) for each analytical batch and the spike solution contained all of the target analytes. The LCS recoveries are within the TRRP recommended limits, which indicates good accuracy for the preparation and analysis technique on a sample free of matrix effects.

DATA USABILITY SUMMARY

Matrix Spike Recovery	The laboratory prepared one Matrix Spike (MS) and Matrix Spike Duplicate (MSD) for each analytical batch and the spike solution contained all of the target analytes. Recoveries are reported for MS/MSD prepared using a sample from the site. One MS/MSD pair was prepared using sample LMW-21 (0-05) and the recoveries are within the TRRP recommended criteria, which indicates good accuracy for the preparation and analysis technique on the given sample matrix.
Surrogate Recovery	Surrogates are not used for 6010B metals analysis.
Laboratory Duplicate Precision	The MS/MSD RPDs for all analytes are within the TRRP recommended limits, which indicates good precision for the preparation and analysis technique on the given sample matrix.
Field Duplicate Precision	No field duplicates were collected with the samples.
Instrument Tuning	Instrument tuning is not required for 6010B metals analysis.
Instrument Calibration	According to the LRCs, initial and continuing calibration data met method requirements for all reported results, which indicates the instruments were properly calibrated to measure target analyte concentrations.
Instrument Performance	According to the LRCs, the serial dilution and ICP interference check samples met method requirements, which indicates that no significant matrix interference exists.
Internal Standards	Internal standards are not used for 6010B metals analysis.

TABLE 1
EXIDE CLASS II LANDFILL
SOIL SAMPLING – FEBRUARY 2013

SAMPLES ANALYZED

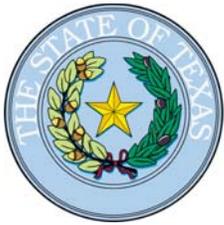
Lab ID	Field ID	Sample Type	Sample Matrix	Sample Date	QC Batch (Cd, Pb)
600-69246-001	PMW-20R (0-0.5)	INV	Solid	2/26/2013	100613
600-69246-005	PMW-19R (0-0.5)	INV	Solid	2/26/2013	100613
600-69246-009	LMW-21 (0-0.5)	INV	Solid	2/27/2013	100613
600-69246-009	LMW-21 (0-0.5)	MS	Solid	2/27/2013	100613
600-69246-009	LMW-21 (0-0.5)	MSD	Solid	2/27/2013	100613
600-69246-013	LMW-22 (0-0.5)	INV	Solid	2/27/2013	100613

INV – Investigative

MS – Matrix Spike

MSD – Matrix Spike Duplicate

ATTACHMENT 1
LABORATORY ACCREDITATION CERTIFICATE



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive
Houston, TX 77040-5056

Certificate: T104704223-12-9
Expiration Date: 10/31/2013
Issue Date: 11/1/2012

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: *Solid & Chemical Materials*

Orthophosphate as P	TX	1870	10070403
Phosphorus	TX	1910	10070403
Method EPA 6010			
Analyte	AB	Analyte ID	Method ID
Aluminum	TX	1000	10155609
Antimony	TX	1005	10155609
Arsenic	TX	1010	10155609
Barium	TX	1015	10155609
Beryllium	TX	1020	10155609
Boron	TX	1025	10155609
Cadmium	TX	1030	10155609
Calcium	TX	1035	10155609
Chromium	TX	1040	10155609
Cobalt	TX	1050	10155609
Copper	TX	1055	10155609
Iron	TX	1070	10155609
Lead	TX	1075	10155609
Lithium	TX	1080	10155609
Magnesium	TX	1085	10155609
Manganese	TX	1090	10155609
Molybdenum	TX	1100	10155609
Nickel	TX	1105	10155609
Potassium	TX	1125	10155609
Selenium	TX	1140	10155609
Silica as SiO ₂	TX	1990	10155609
Silver	TX	1150	10155609
Sodium	TX	1155	10155609
Strontium	TX	1160	10155609
Thallium	TX	1165	10155609
Tin	TX	1175	10155609



Texas Commission on Environmental Quality



NELAP - Recognized Laboratory Fields of Accreditation

TestAmerica Laboratories, Inc. - Houston

6310 Rothway Drive
Houston, TX 77040-5056

Certificate: T104704223-12-9
Expiration Date: 10/31/2013
Issue Date: 11/1/2012

These fields of accreditation supercede all previous fields. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Matrix: *Solid & Chemical Materials*

Titanium	TX	1180	10155609
Vanadium	TX	1185	10155609
Zinc	TX	1190	10155609
Method EPA 7470			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10165807
Method EPA 7471			
Analyte	AB	Analyte ID	Method ID
Mercury	TX	1095	10166208
Method EPA 8015			
Analyte	AB	Analyte ID	Method ID
Allyl alcohol	TX	4350	10173601
Diesel range organics (DRO)	TX	9369	10173601
Ethanol	TX	4750	10173601
Ethylene glycol	TX	4785	10173601
Gasoline range organics (GRO)	TX	9408	10173601
Isobutyl alcohol (2-Methyl-1-propanol)	TX	4875	10173601
Isopropyl alcohol (2-Propanol, Isopropanol)	TX	4895	10173601
Methanol	TX	4930	10173601
n-Butyl alcohol (1-Butanol, n-Butanol)	TX	4425	10173601
n-Propanol (1-Propanol)	TX	5055	10173601
Method EPA 8021			
Analyte	AB	Analyte ID	Method ID
Benzene	TX	4375	10174808
m+p-xylene	TX	5240	10174808
Methyl tert-butyl ether (MTBE)	TX	5000	10174808
o-Xylene	TX	5250	10174808
Toluene	TX	5140	10174808
Xylene (total)	TX	5260	10174808
Method EPA 8081			
Analyte	AB	Analyte ID	Method ID